

What Is Claimed Is:

1. A mastication monitoring device comprising:

a probe to be attached to a cheek, comprising a light source and a photodetector; and

5 a mastication iteration counting means to count the mastication iterations after a subject to be measured starts a series of mastication movements, based on time-series changes in at least one of the oxidized hemoglobin concentrations, the reduced hemoglobin concentrations and
10 the oxygen saturation in the blood of said cheek, each computed from the amount of light received by said photodetector.

2. A mastication monitoring device comprising:

a probe to be attached to a cheek, comprising a light
15 source and a photodetector; and

a mastication force computing means to compute the force of mastication, based on time-series changes in at least one of the oxidized hemoglobin concentrations, the reduced hemoglobin concentrations and the oxygen saturation
20 in the blood of said cheek, each computed from the amount of light received by said photodetector.

3. The mastication monitoring device according to Claim 2, further comprising a food hardness judging means to judge the hardness of the food being masticated by a subject
25 to be measured, based on the force of mastication computed by said mastication force computing means.

4. The mastication monitoring device according to Claim 2, further comprising a swallowability judging means to judge whether or not the food being masticated by a subject to be measured has become swallowable, based on the force of mastication computed by said mastication force computing means.

5. A mastication monitoring device comprising:

a probe to be attached to a cheek, comprising a light source and a photodetector; and

a mastication momentum computing means to compute the momentum of mastication after a subject to be measured starts a series of mastication movements, based on time-series changes in at least one of the oxidized hemoglobin concentrations, the reduced hemoglobin concentrations and the oxygen saturation in the blood of said cheek, each computed from the amount of light received by said photodetector.

6. The mastication monitoring device according to Claim 5, further comprising a food viscosity judging means to judge viscosity of the food being masticated by the subject to be measured, based on the momentum of mastication computed by said mastication momentum computing means.

7. A mastication monitoring device comprising:

two probes to be attached to the cheeks, each comprising a light source and a photodetector; and

a mastication force balance computing means which

computes an index showing a balance of bilateral mastication forces, based on time-series changes in at least one of the oxidized hemoglobin concentrations, the reduced hemoglobin concentrations and the oxygen saturation in the blood of said cheek, each computed from the amount of light received by said photodetector of one probe, and time-series changes in at least one of the oxidized hemoglobin concentrations, the reduced hemoglobin concentrations and the oxygen saturation in the blood of said cheek, each computed from the amount of light received by said photodetector of the other probe..

8. A mastication monitoring device comprising:

a probe to be attached to a cheek, comprising a light source and a photodetector;

a mastication force computing means to compute the force of mastication, based on time-series changes in at least one of the oxidized hemoglobin concentrations, the reduced hemoglobin concentrations and the oxygen saturation in the blood of said cheek, each computed from the amount of light received by said photodetector;

a mastication momentum computing means to compute the momentum of mastication after a subject to be measured starts a series of mastication movements, based on time-series changes in at least one of the oxidized hemoglobin concentrations, the reduced hemoglobin concentrations and the oxygen saturation in the blood of said cheek, each

computed from the amount of light received by said photodetector;

5 a recording means to record the force of mastication computed by said mastication force computing means and the momentum of mastication computed by said mastication momentum computing means; and

10 a mastication properness judging means to judge whether or not mastication is adequate by comparing the mastication force newly computed by said mastication force computing means with the past mastication force recorded on said recording means as well as comparing the mastication momentum newly computed by said mastication momentum computing means with the past mastication momentum recorded on said recording means.